

AMENDMENTS TO THE CLAIMS

1-32. (canceled)

33. (currently amended) A computer-implemented method of mapping graphical block diagram block parameters in a graphical block diagram modeling environment, comprising:

receiving a plurality of user-defined block parameters;

processing the plurality of user-defined block parameters to produce a plurality of run-time block parameters;

processing the run-time parameters values to identify block-specific non-interfaced run-time block parameters that have like values; and

pooling together the identified [[like]] non-interfaced run-time block parameters that have like values to reuse data for the [[like]] non-interfaced run-time block parameters.

34. (previously presented) The method of claim 33, wherein pooling further comprises mapping user-defined block parameters into an existing pool.

35. (previously presented) The method of claim 33, wherein the non-interfaced run-time block parameters have stored values that differ from presented values.

36. (previously presented) The method of claim 35, wherein the non-interfaced run-time block parameters are fixed point.

37. (previously presented) The method of claim 33, further comprising translating at run-time constant parameter values to an internal representation to enable increased pooling.

38. (previously presented) The method of claim 33, wherein the step of pooling further comprises collecting constant portions of an expression containing an interfaced variable.

39. (previously presented) The method of claim 33, wherein the run-time block parameters are configured to return at least one of simulation results, and automatically generated code that implements graphical block diagram model equations.

40. (previously presented) The method of claim 39, wherein when the code is automatically generated, parameter expressions are maintained in the automatically generated code.

41. (previously presented) The method of claim 40, wherein the parameter expressions contain interfaced variables which are updatable.

42. (previously presented) The method of claim 41, further comprising converting to a relatively more compact representation portions of the parameter expressions that are constants while providing access to interfaced variables.

43. (previously presented) The method of claim 41, wherein interfaced variables are updatable.

44. (previously presented) The method of claim 43, wherein updatable variables used in a plurality of blocks are declared only once.

45. (canceled)

46. (currently amended) A medium for use in a graphical modeling environment on an electronic device, the medium holding instructions executable using the electronic device for performing a method of mapping graphical block diagram block parameters, the method comprising:

receiving a plurality of user-defined block parameters;

processing the plurality of user-defined block parameters to produce a plurality of run-time block parameters; [[and]]

processing the run-time parameters values to identify block-specific non-interfaced run-time block parameters that have like values; and

pooling together the identified [[like]] non-interfaced run-time block parameters that have like values to reuse data for the [[like]] identified run-time block parameters.